

Date: Tuesday, 1/8/2008 1:20:13 PM
 User: Kim Johnston

Process Sheet

Customer	CU-DAR001 Dart Helicopters Services		Drawing Name	BRACKET ASSEMBLY		
Job Number	36666					
Estimate Number	10281					
P.O. Number	:		Part Number	D3183043		
This Issue	: 1/8/2008	S.O. No. :	Drawing Number	D3183 REV C1		
Prsht Rev.	: NC		Project Number	N/A		
First Issue	: / /	Type : MACHINED PARTS	Drawing Revision	C1		
Previous Run	: 31731		Material	:		
Written By	:	<u>JL 08/01/08</u>	Due Date	: 2/15/2008	Qty:	8 Um: Each
Checked & Approved By	:					
Comment	Est Rev: Pick:A 04.02.18 New issue KJ/DS					

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :	
1.0	M174B2000X01500	17-4 SS Bar	
		Comment: Qty.: 0.4812 f(s)/Unit Total : 3.8497 f(s) Material: 17-4 SS Bar per AMS 5604/5643 (M17-4-B1.500x02.000) Identify for D3183-043 Batch: <u>M19478</u>	
2.0	BAND SAW	BAND SAW	
		Comment: BAND SAW Cut blanks: (1.500" x 2.000") 5.500" long	
3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1	
		Comment: HAAS CNC VERTICAL MACHINING #1 1-Machine D3183-3 as per Folio FA322 and Dwg D3183 Identify as D3183-3 2-Deburr 3-Scribe batch number	
4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE	
		Comment: INSPECT PARTS AS THEY COME OFF MACHINE	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3183-D43 PAR #: NA Fault Category: Prod - Mech NCR: Yes No DQA: AS Date: 08.01.28
 QA: N/C Closed: AS Date: 08.01.28

NCR: 36666		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08.01.21	3.0	• 1 part scrapped. • R.C. Tool was not long enough, and the chuck ran into the part. Operator error.	<u>AS</u>	- Scrapped chucks. - replace qty 2 m <u>19478</u>	<u>AS</u> 08/01/21	<u>AS</u> 08.01.21	<u>AS</u> 08/01/21	<u>AS</u> 08.01.21

NOTE: Date & initial all entries

Date: Tuesday, 1/8/2008 1:20:14 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET ASSEMBLY

Job Number: 36666

Part Number: D3183043

Job Number:



Seq. #: Machine Or Operation:

Description :

5.0 QC8 SECOND CHECK



Comment: SECOND CHECK

SA 08.01.23

(1)

6.0 D312121 Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Qty Part Number Description Batch
2 D3121-21 Bolt B 36608

SA 08/01/23

7.0 D3183045 Bearing Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 16.0000 Each(s)

Pick:

Qty Part Number Description Batch
2 D3183-045 Bearing Ass B36658

SA 08/01/23

8.0 SMALL FAB 1 SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble D3183-043 as per Dwg D3183.

SA 08/01/23

9.0 QC5 INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SA 08/01/23 (Y)

10.0 PACKAGING 1 PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: ST83

ST234A

SA 08/01/23 (8)

11.0 QC21 FINAL INSPECTION/W/O RELEASE



08.01.25 (J)

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



SA 2008/1/24
W

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	36666
Description: Bracket	Part Number:	D3183-3
Inspection Dwg: D3183 Rev: C1		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

First Article Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
R0.190	+/-0.030	1.19	/			
R0.063	+/-0.010	0.063	/			
0.182	+/-0.010	.185	/			
0.070	+/-0.010	.070	/			
0.100	+/-0.010	1.00	/			
Ø0.201 x 0.100	+/-0.010	Ø200 x 100	/			
0.182	+/-0.010	.182	/			
5.32	+/-0.030	5.324	/			
5.036	+/-0.010	5.036	/			
2.120	+/-0.010	2.120	/			
1.290	+/-0.010	1.290	/			
0.365	+/-0.010	.365	/			
0.218	+/-0.010	.215	/			
1.030	+/-0.010	1.030	/			
1.90	+/-0.030	1.888	/			
1.012	+/-0.010	1.015	/			
Ø0.201 x 0.100	+/-0.010	Ø200 x 100	/			
0.182	+/-0.010					Not on Drawing 3 times
0.786	+/-0.010	.790	-			
Ø0.392	+0.002/-0.000	Ø.392	/			
R0.19	+/-0.030	R.19	/			
3.954	+/-0.010	3.954	/			
0.162	+/-0.010	.166	/			
R0.19	+/-0.030	R.19	/			
R0.25	+/-0.030	R.25	/			
4.26	+/-0.030	4.262	/			
2.080	+/-0.030	2.080	/			
1.155	+/-0.010	1.155	/			
0.162	+/-0.010	.166	/			
0.36	+/-0.030	.36	/			
0.615	+/-0.010	.615	/			
0.435	+/-0.010	.431	/			
0.200	+/-0.010	.202	/			
0.381	+/-0.010	.381	/			
0.032	+/-0.010					

Measured by:	SA	Audited by:	SC	Prototype Approval:	N/A
Date:	08/01/17	Date:	08-01-20	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue P/O D3183-043	KJ/RF	
B	04.03.15	Changes as per revision C	KJ/JLM/RF	
C	06.03.09	Dwg Rev update	KJ/JLM	SAC

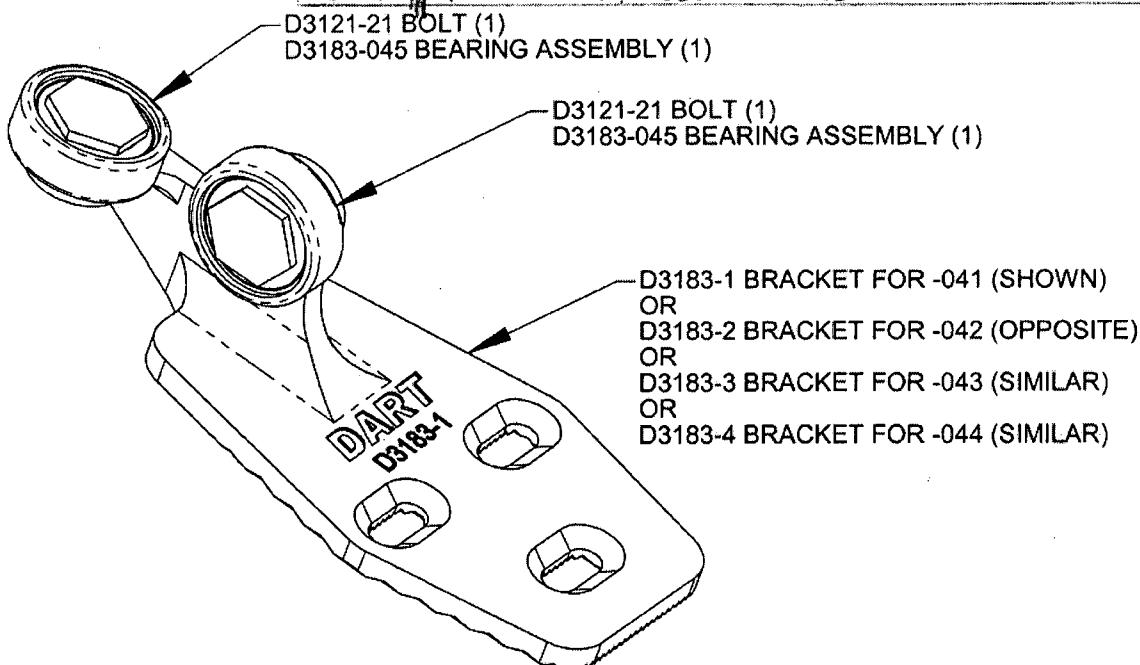




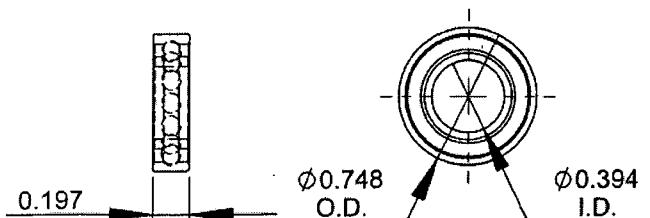
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SHEET 1 OF 4

DESIGN #	DRAWN BY GP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3183	REV. C SHEET 1 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1

RELEASED
04.03.01



D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



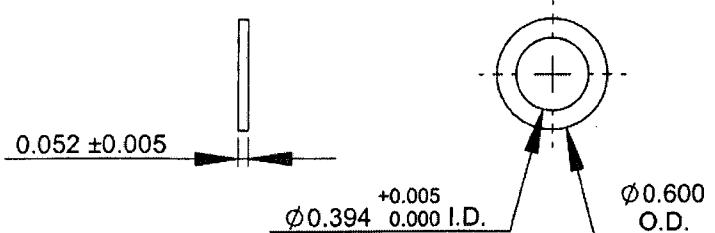
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- 2) POSSIBLE SUPPLIER: NSK P/N 6800ZZRN TO
- 3) ALL DIMENSIONS ARE IN INCHES ENGINEERING

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WITHOUT NOTICE

WORK ORDER

NO. 36666



D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R) ANNEALED
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.010
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

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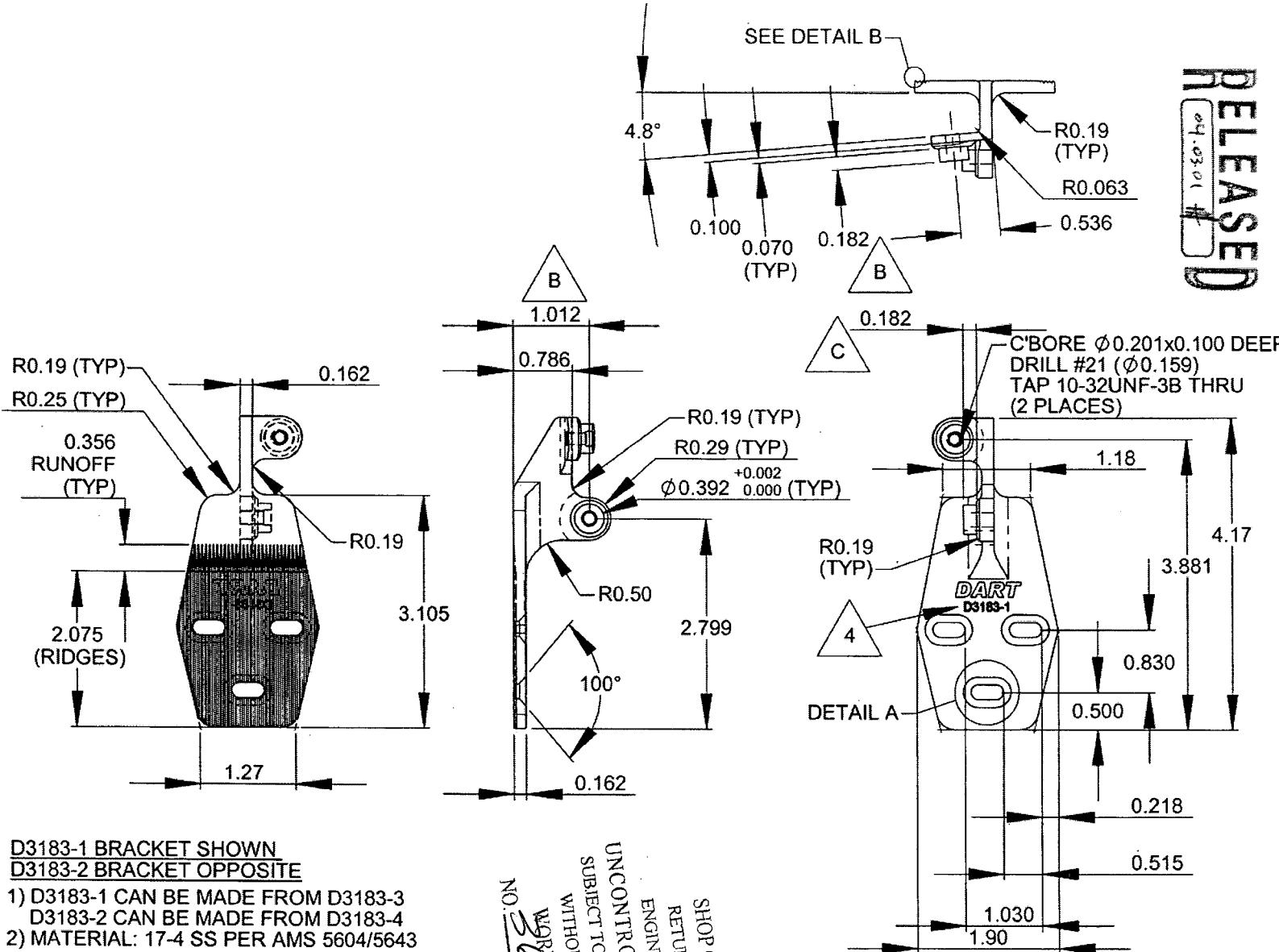
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		D3183
DATE		SHEET 2 OF 4
04.02.17		SCALE
		1:2

RELEASED
04.03.01



D3183-1 BRACKET SHOWN
D3183-2 BRACKET OPPOSITE

- 1) D3183-1 CAN BE MADE FROM D3183-3
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS
OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

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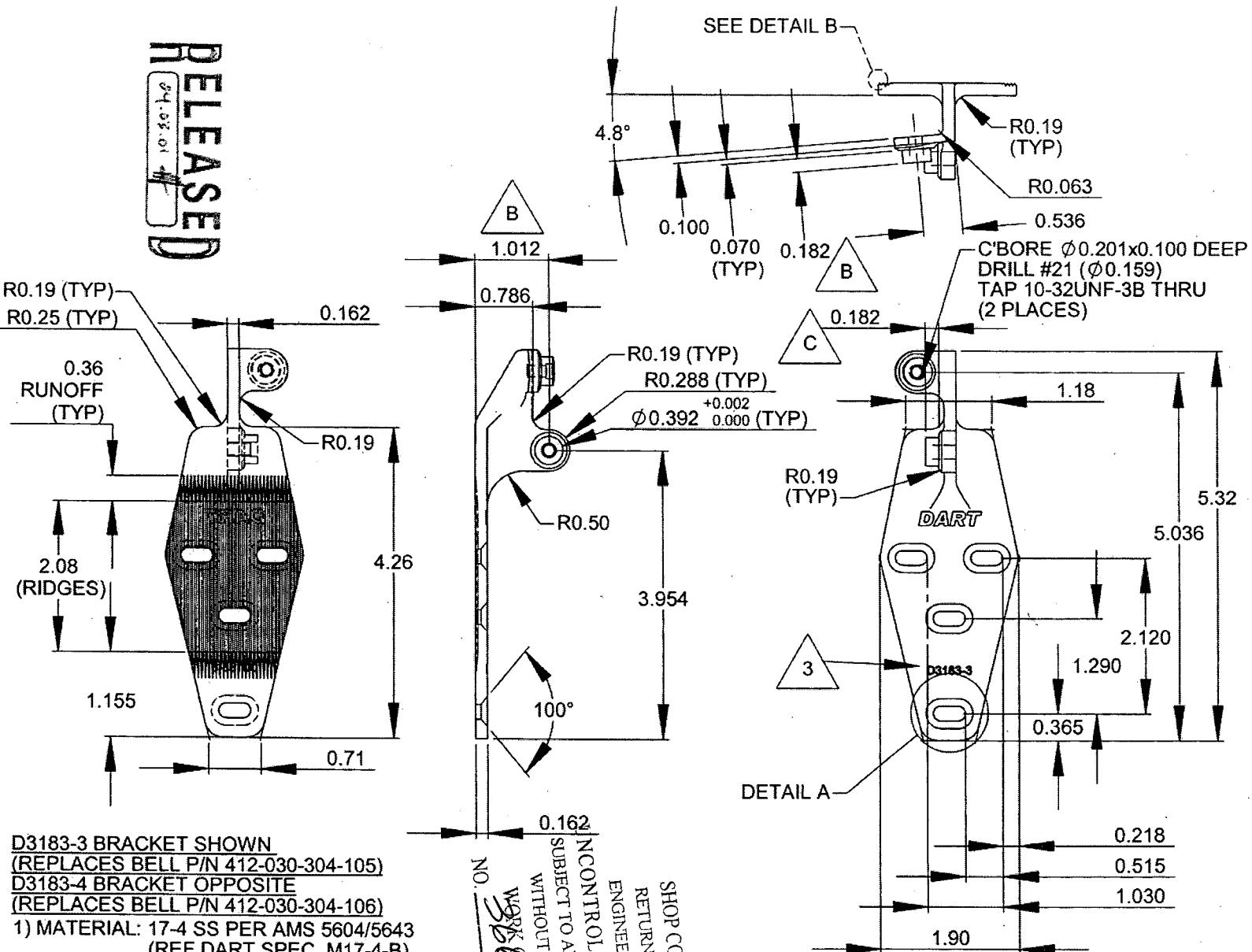
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D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-10)

**D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)**

1) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi

MIN YIELD STRENGTH = 100 ksi
2) BREAK ALL SHARP EDGES 0.005 TO 0.015
3) ENGRAVE DART P/N & LOGO AS SHOWN
4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
5) ALL DIMENSIONS ARE IN INCHES



		DRAWN BY <i>JP</i>	
		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DESIGN	REMOVED	DRAWING NO.	REV. C
CHECKED	REMOVED	D3183	SHEET 3 OF 4
APPROVED	REMOVED	TITLE	SCALE
DATE	04.02.17	BRACKET ASSEMBLY	1:2

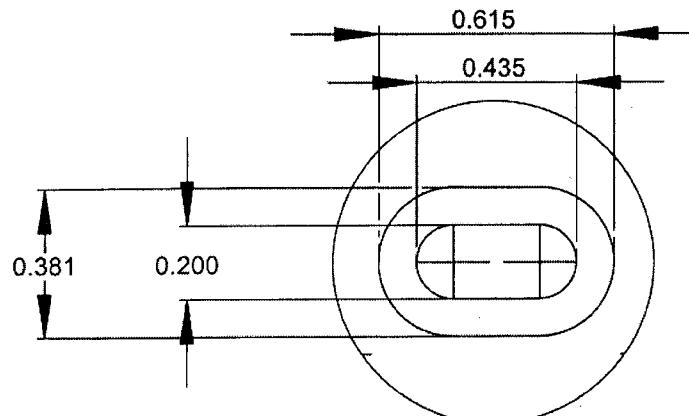


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DATE	04.02.17

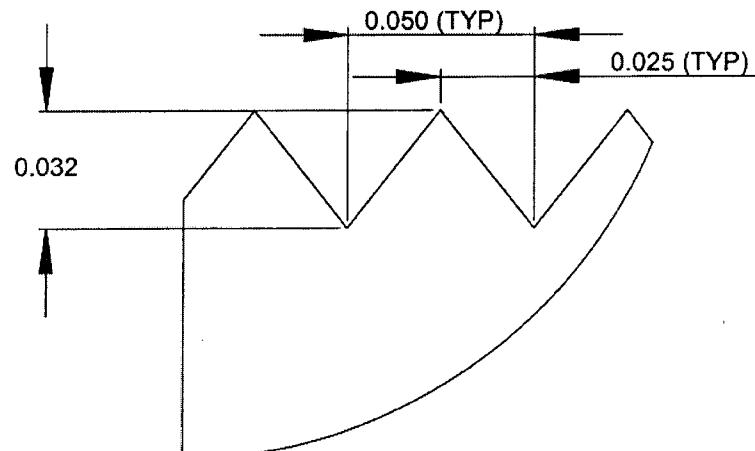
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HAWKESBURY, ONTARIO, CANADA

REV. C
SHEET 4 OF 4
SCALE
1:1

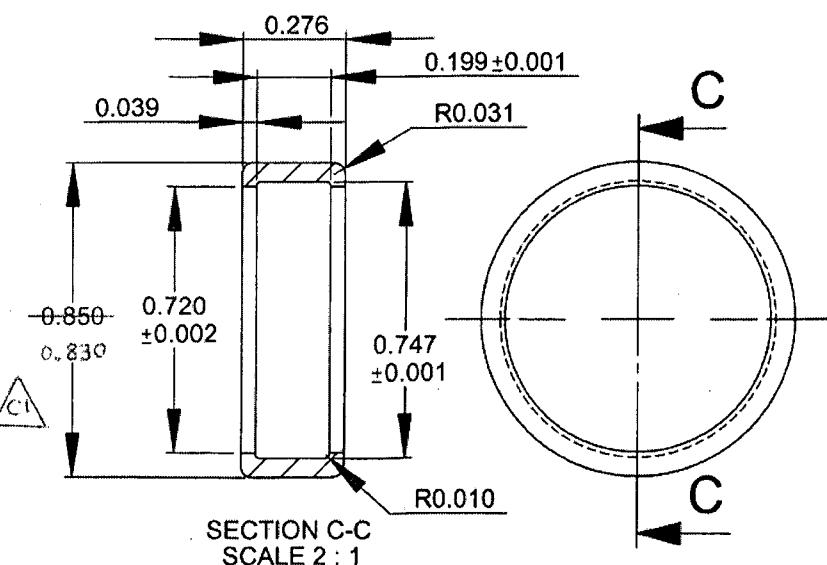


DETAIL A (2 : 1)

RELEASED
04-03-01



DETAIL B (20 : 1)



D3183-9 CAP

1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
3) ALL DIMENSIONS ARE IN INCHES

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WORK ORDER
NO. 36666

D3183-045 BEARING ASSEMBLY

1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP

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